Minutes from Aura Validation Meeting
Friday July 9, 2004

Lucien Froidevaux opened this meeting with a summary of planned validation activities, including some activities planned for ENVISAT validation that can be useful to Aura validation as well.

The Europeans plan balloon flights that may augment the US schedule of balloon launches. The US balloon flights will be only mid and high latitude, thus the planned tropical flight is particularly important.

AVE

Both HIRDLS and MLS point out the lack of an instrument measuring N_2O and CFC-11 and CFC-12 in the October 2004 AVE mission. N_2O measurements are particularly desired because there are no other measurements of N_2O except for balloon profiles planned for the near term. This is not possible for the October AVE mission due to funding constraints and other considerations. The current focus on TES validation and the effective use of several newly integrated remote sensors sums to a full plate for mission planning and implementation.

OMI would like NO_2 measurements as part of AVE, Rich McPeters stated that these measurements are needed in summer 2005, and that it is not crucial for them to be part of the first AVE campaign.

TES emphasized their need for measurements from scanning HIS. If this does not work in October, these measurements would be vital in January. Stan Sander was concerned since this instrument has not been flown from the WB-57. Mike Kurylo says that this use of the scanning HIS is low risk.

AVE wants more information from Aura validation scientists on the targets and viewing opportunities. It is important that this communication begin immediately.

Bojan Bojkov described the status of the AVDC. The AVDC data protocol draft is on the Aura website http://avdc.gsfc.nasa.gov/. The AVDC website is up, but for limited use until the hardware is delivered.

Toolkits for HDF4 for Envisat compatability will be available. Transition to HDF5 should take place at the end of 2004.

Data subsetting for validation is an important issue. The DAAC personnel are willing to assist in subsetting Aura data.

TES must establish the data flow to the AVDC for “special observations”.

Preliminary versions of NDSC data will be available within 30 days of the measurement in HDF to be AVDC/Envisat compliant.

ACTIONS for LIAISONS (this action was given at the last validation meeting, and must be completed within 15 working days for receipt of these minutes).
Action 1 – ozone sondes

* identify key stations
* establish contact information and determine current status of station
* determine if help is required for data conversation

These actions were given at the last science team meeting and are not completed. In some cases (e.g., Ozone sondes, Jennifer Logan) input from the teams TO THE LIAISON is required to complete this action.
Action 2 – other constituents

* key stations/station names
* PI's of the instruments – do they need access to AVDC
* Instrumentation

Note there is an AVDC list of stations and station names; this list may not be complete but should be sufficient to meet initial needs.

AVDC is aiming for a September start-up with limited functionality. AVDC should be ready to meet needs for October AVE.

B. Bojkov will have the action of contacting Jim Margitan concerning the late September UARP balloon launches to obtain data for the AVDC.

Ernest Hilsenrath presented results from Envisat Validation. Envisat was launched in March 02, and there has been much progress between the first validation workshop (Dec. 02) and the second (May 04). The presentations for that workshop are available from http://envisat.esa.int/workshops/acve2/presentations/. Comparisons between satellite profiles are dominant. SCIAMACHY uses limb scatter to get O_3 profiles as will be done with OMPS. Validation balloon flights for Envisat include

Location	Time	Campaign name/type of measurement
Canada	August 2004	(MANTRA)
Brazil	Oct/Nov 2004	remote and in situ payloads
Kiruna	Jan/Feb 2005	
	June 2005	GAP
	Sept 2005	ASA

Hennie Kelder presented more information on ENVISAT, and distinguished between operational products of ESA and "non-operational products of KNMI and others.
Data can be obtained from the web for O3, NO2, cloud information and UV index. These near-real time products are available and are also archived
http://www.sciamachy-validation.org

Dr. Kelder recommends writing a general proposal to ESA for access for Aura Validation activities. Ernie Hilsenrath will look at the ESA research announcement and coordinate a single general proposal for Aura investigators to gain access to ENVISAT data.

The four Aura instruments presented plans for validation during the early operational phase of Aura.

HIRDLS – Doug Kinnison

Main unmet need is for N_2O and other long lived gases to be routinely included on AVE campaigns.

MLS – Lucien Froidevaux

Same need for N_2O to be included routinely on AVE campaigns.

OMI – Rich McPeters

OMI has already been promised fast-turnaround data from a number of sondes. The ideal measurements from aircraft for OMI are columns and profiles above and below aircraft.

TES – Stan Sander

TES needs are presented in their specific validation requirements document, and are unchanged. Radiance validation is their top priority. Validation of constituents requires that the measurements explore the full dynamic range.

Jennifer Logan (not present) sent a presentation concerning ozonesondes. There were questions in this presentation that must be answered by each team. Please see the AVDC web page for a copy of this presentation.
The Ny Alesond station may be reducing the frequency of their ozonesonde measurements. Someone needs to follow up on this.

Bill Read showed a map of CU/CMDL water vapor sondes that get good data in the "critical" TTL. UARS MLS shows features in this region that could be artifacts of the poor (compared to water vapor sondes and EOS MLS) vertical resolution of the satellite water vapor profiles. The water vapor sondes are necessary in the tropics to separate real features from resolution artifacts.